

## **City of Long Beach**

# **ADDENDUM TO HAZARD MITIGATION PLAN**

*Following is a list of the additions/corrections/clarifications that were prepared to address the items identified on the recent FEMA Crosswalk. Since the revisions are scattered throughout the document, we have chosen to issue this Addendum. Once we receive approval from FEMA, the Plan will be updated to include the matters addressed in the Addendum. At that point, the Natural Hazards Mitigation Plan will become a final document.*

*The attached Crosswalk will serve as a guide through the contents of the Addendum.*

### **EXECUTIVE SUMMARY**

#### How are the Action Items Organized?

##### Add a subsection called “Funding Source”

“The actions items will be funded through a variety of sources, possibly including: operating budget/general fund, development fees, Community Development Block Grant (CDBG), Hazard Mitigation Grant Program (HMGP), other Grants, private funding, Capital Improvement Program (CIP), and other funding opportunities.”

##### Coordinating Organization

Add the following to the beginning of the subsection: “The Mitigation Actions Matrix assigns primary responsibility for each of the action items. The hierarchies of the assignments vary – some are positions, others departments, and others Committees. No matter, the primary responsibility for implementing the action items falls to the entity shown as the “Coordinating Organization”.

#### Attachment 1 – Mitigation Actions Matrix

Add the following action item to the Multi-Hazard list: “Conduct a detailed vulnerability assessment in the future in order to accurately identify the extent of damages to vulnerable buildings, infrastructure, and critical facilities”.

### **SECTION 3: PLAN MAINTENANCE**

#### Economic Analysis of Mitigation Projects

Insert the following at the beginning of this section: “At the Hazard Mitigation Advisory Committee’s first implementation meeting, the STAPLEE Tool (Plan Maintenance – Attachment 1) or some other prioritizing tool will be utilized to prioritize the action items identified in the Mitigation Actions Matrix (Executive Summary – Attachment 1). In addition, appropriate funding sources will be identified for the “top ten” priority action items.

### **SECTION 4: RISK ASSESSMENT**

#### 1) Hazard Identification

Begin this subsection with the following: “The Planning Team considered a range of natural hazards facing the region including: Earthquakes, Flooding, Earth Movement, Windstorms, Wildfire, Tsunami, and Drought. The attached Ranking Your Hazards - Attachment 1 handout guided the Team in prioritizing the natural hazards with the highest probability of significantly

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impacting the City of Long Beach. The Team agreed that any hazards receiving a Team average score of “3” or higher would be included in the Natural Hazards Mitigation Plan. Utilizing the ranking technique, the Team identified: Earthquakes, Flooding, Earth Movement, Windstorms, and Tsunamis as the most prominent hazards facing the community.

## 2) Profiling Hazard Events

Revise as follows: “This process describes the causes and characteristics of each hazard...”

At end of paragraph, refer to Risk Assessment – Attachment 2 Vulnerability: Location, Extent, & Probability:

### **Risk Assessment – Attachment 2 Vulnerability: Location, Extent, and Probability\***

	<b>Location (Where)</b>	<b>Extent (How Big)</b>	<b>Probability (How Often)*</b>
<b>Hazard</b>			
Earthquake	Entire Project Area	According to USGS, there is a 60% chance in the next 30 years of an earthquake measuring greater than 6.7 occurring in southern California.	Moderate
Flood	Southeastern and Southwestern corners of the City	FEMA Zone B – minimal flood risk	Low
Earth Movement	Southeastern corner of the City	Groundwater Upwelling prone area shown in Earth Movement – Page 11. Data not available on extent of hazard.	Data not available
Windstorm	Entire Project Area	50 miles per hour or greater	Moderate
Tsunami	Southern boundary – Port of Long Beach	Maximum Run-Up (meters) 12 (see Tsunami – Page 8 for complete data)	Low
* Probability is defined as: Low = 1:500 years, Moderate = 1:100 years, High = 1:10 years			

## 4) Risk Analysis

Last sentence should be revised to read: “Data was not available to make vulnerability determinations in terms of dollar losses. The Mitigation Actions Matrix (Executive Summary – Attachment 1) includes an action item to conduct such an assessment in the future.

### Table 4-2

Add an asterisk to the title and the following: (\*data not available to determine the extent of damages to the critical and essential facilities).

## **APPENDIX B**

Toward the end of page 2 following the list of Meetings, insert the following: “Throughout the planning process, the consultant reminded the Planning Team of the importance of considering Benefit/Cost issues including: social issues, political realities, economic benefits, and environmental concerns. During Meeting #4, the consultant introduced the Planning Team to the STAPLEE Tool (Social, Technical, Administrative, Political, Legal, Economic, and

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Environmental) as one of many means available to prioritize mitigation actions. Following a discussion of a range of benefit/cost issues, the Planning Team voted to cluster the action items by hazard as follows: #1 Multi-Hazard, #2 Earthquake, #3 Flooding, #4 Earth Movement, #5 Windstorms, and #6 Tsunamis. The Team was unanimous in its belief that the “Multi-Hazard” actions would yield the greatest benefit to the jurisdiction.”

**Plan Maintenance – Attachment 1: Simplified STAPLEE Worksheet**

## Simplified STAPLEE Worksheet – Prioritizing Mitigation Actions (Social, Technical, Administrative, Political, Legal, Economic, Environmental)

1. Fill in the goal. Use a separate worksheet for each goal. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations.
2. Fill in the action items associated with the goal.
3. **Scoring:** For each action item, indicate a plus (+) for favorable, and a negative (-) for less favorable.

When you complete the scoring, add up the positives to establish your priorities. For STAPLEE categories that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer – seek the input of an expert.

Goal: \_\_\_\_\_

STAPLEE Category	S (Social)		T (Technical)			A (Administrative)			P (Political)		
Categories (right)  Action Items (below)	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/ Operations	Political Support	Local Champion	Public Support
1.											
2.											
3.											
4.											
5.											
6.											

<b>STAPLEE Categories</b>	<b>L (Legal)</b>			<b>E (Economic)</b>				<b>E (Environmental)</b>				
<b>Categories (right)  Action Items (below)</b>	<b>State Authority</b>	<b>Existing Local Authority</b>	<b>Potential Legal Challenge</b>	<b>Benefit of Action</b>	<b>Cost of Action</b>	<b>Contributes to Economic Goals</b>	<b>Outside Funding Required</b>	<b>Effect on Land/ Water</b>	<b>Effect on Endangered Species</b>	<b>Effect on HAZMAT/Waste Sites</b>	<b>Consistent with Community Environmental Goals</b>	<b>Consistent with Federal Laws</b>
1.												
2.												
3.												
4.												
5.												
6.												

## Ranking Your Hazards

*It is important to keep in mind that your rankings should be based on a hazard event that would overwhelm your jurisdiction's ability to respond effectively.*

For each hazard listed assign a score. Place a number in the appropriate box.

Hazard Scoring	
<b>1</b>	An event of that magnitude is not likely to occur
<b>2</b>	There is a slight chance that an event of that magnitude will occur
<b>3</b>	It is possible that an event of that magnitude will occur
<b>4</b>	An event of that magnitude has occurred here in the past and is likely to occur again
<b>5</b>	There is a high probability that an event of that magnitude will occur

Identify any additional hazards for the jurisdiction at the end of the list labeled as "Other Hazard."

<b>Hazard</b>	<b>Score</b>
Earthquake	
Flooding	
Wildfire	
Windstorm	
Earth Movement (Landslide/Debris Flow)	
Tsunami	
Drought	
Other Hazard _____	
Other Hazard _____	
Other Hazard _____	
Other Hazard _____	
Other Hazard _____	
Other Hazard _____	